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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,766	02/19/2004	Junji Kondou	2004_0157A	2067

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EXAMINER	
TIMORY, KABIR A	
ART UNIT	**PAPER NUMBER**
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/780,766	KONDOU ET AL.	
	Examiner	Art Unit	
	Kabir A. Timory	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/18/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 2, 3, 4, 5, and 6 are objected to because of the following informalities:

(1) In claim 1, line 5, "arranges" should be changed to **"arrange"**.

(2) In claim 5, line 6, "arranges" should be changed to **"arrange"**.

(3) In claim 6, line 2, "arranges" should be changed to **"arrange"**.

(4) In claim 7, lines 1 and 2, "the length of an arrangement interval" should be changed to **"a length of an arrangement interval"**.

(5) In claim 9, lines 1 and 2, ""the length of noise cycle " should be changed to **"a length of noise cycle"**.

(6) In claim 4, the dependency of the claim should change from 1 to claim **3** because claim 1 does not teach "the length of the synchronous word" limitation.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 - 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Taura et al. (US Patent Number 6,516,039).

(1) Regarding claim 1:

Taura et al. discloses a frame synchronization method (column 2, lines 13-14) comprising:

- composing data and a synchronous word (figure 2) to generate a frame (symbols "synchronization signal" is interpreted to be the synchronous word) (column 3, lines 35-36);

- transmitting the generated frame from a transmitter to a receiver (this limitation is inherit because the signal has to be transmitted by a transmitter to be received by a receiver) (figure 1, 1) via a transmission line (this limitation is inherit because one of ordinary skill in the art would have clearly recognized that, any communication between a transmitter and a receiver is obtained via a transmission medium),

- wherein said composing the data and the synchronous word arranges the synchronous word based on noise cycle of the transmission line (noise pulses is interpreted to be noise cycle) (column 7, lines 19-23).

(2) Regarding claim 2:

A frame synchronization method (column 2, lines 13-14) as recited in claim 1, wherein the synchronous word (symbols "synchronization signal" is interpreted to be the synchronous word) (column 3, lines 35-36) is arranged according to predetermined

arrangement algorithm (storing the width of the synchronization signal is interpreted to be predetermined algorithm) (column 2, lines 21-25).

(3) Regarding claim 3:

A frame synchronization method as recited in claim 2, wherein a parameter of the predetermined arrangement algorithm(storing the width of the synchronization signal is interpreted to be predetermined algorithm) (column 2, lines 21-25) comprises at least one of length of the synchronous word and an arrangement interval of the synchronous word (column 2, lines 21-25).

(4) Regarding claim 4:

A frame synchronization method as recited in claim 1, wherein the length of the synchronous word is almost equal to the length of a multiple of the noise cycle by a natural number (the N value is interpreted to be the natural number) (column 7, lines 19-26).

(5) Regarding claim 5:

A frame synchronization method (column 2, lines 13-14) comprising:

- composing data and a plurality of synchronous words (figure 2) to generate a frame (symbols "synchronization signal" is interpreted to be the synchronous word) (column 1, line 45);

- transmitting the generated frame from a transmitter to a receiver (this limitation is inherit because the signal has to be transmitted by a transmitter to be received by a receiver) (figure 1, 1) (figure 1, column 1, line 16) (figure 1,1) via a transmission line (this limitation is inherit because one of ordinary skill in the art would have clearly

recognized that, any communication between a transmitter and a receiver is obtained via a transmission medium),

- wherein said composing the data and arranges the plurality of synchronous words based on noise cycle of the transmission line (noise pulses is interpreted to be noise cycle) (column 7, lines 19-23).

(6) Regarding claim 6:

A frame synchronization method as recited in claim 5, wherein

- said composed data (column 3, line 23) and the synchronous words arranges the plurality of synchronous words (symbols "synchronization signal" is interpreted to be the synchronous word) (column 1, line 45) over a section as long as the noise cycle (noise pulses are interpreted to be noise cycle and "a section" is interpreted to be noise pulses) (column 7, lines 16-26).

(7) Regarding claim 7:

A frame synchronization method as recited in claim 5, wherein the length of an arrangement interval of at least one pair of the plurality of synchronous words is the plurality of synchronous words different from the length of the noise cycle (symbols are interpreted as synchronous word) (column 1, lines 53-56).

(8) Regarding claim 8:

A frame synchronization method as recited in claim 5, wherein at least one pair of the plurality of synchronous words are arranged using the same pattern (predetermined sequence is interpreted to be pattern) (column 3, lines 18-19).

(9) Regarding claim 9:

A frame synchronization method as recited in claim 1, wherein the length of the noise cycle is the length of a time interval (column 7, lines 19-23) whose noise level (noise pulse is interpreted to be noise level) (column 1, line 56) in the transmission line is beyond a predetennined threshold (predetermined pulse width and predetermined intervals are interpreted to be predetermined threshold) (column 2, line 21-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kabir A. Timory whose telephone number is (571) 270-1674. The examiner can normally be reached on Mon - Thu 6:30AM - 4:00PM & Fri 6:30AM - 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kabir A. Timory
January 16th, 2007

SHUWANG LIU
SUPERVISORY PATENT EXAMINER